

What is claimed is:

- Sub A1*
1. A maintenance control system of an image processor for processing an image, comprising:
- (a) the image processor;
 - (b) a communication section for transmitting and receiving information between the image processor and a control apparatus for controlling maintenance of the image processor; and
 - (c) an information obtaining means for obtaining information to reproduce a condition of the image processor on a control apparatus side,
wherein the information obtained by the information obtaining means is transmitted to the control apparatus through the communication section.
2. The maintenance control system of claim 1, wherein the information is one to reproduce a motion condition of the image processor, or an operation condition to the image processor on the control apparatus side.
3. The maintenance control system of claim 1, wherein the predetermined information is transmitted in parallel with a maintenance instruction of the control apparatus side.

4. The maintenance control system of claim 1, wherein the information obtaining means is a photographing means for photographing the operation condition and/or the motion condition of the image processor, and the image information photographed by the photographing means is transmitted to the control apparatus.

5. The maintenance control system of claim 4, wherein the photographing means is movable.

6. The maintenance control system of claim 4, wherein an image photographed by the photographing means is animation.

7. The maintenance control system of claim 4, wherein a time coordinate axis having a same reference as that of a motion of the image processor is displayed on an image photographed by the photographing means.

8. The maintenance control system of claim 4, wherein the image processor has a cathode ray tube (CRT), the image information includes an image displayed on the cathode ray tube.

9. The maintenance control system of claim 1, wherein the information obtaining means is a sound recording means for recording an motion sound of the image processor, and the information of the motion sound recorded by the sound recording means is transmitted to the control apparatus.

10. The maintenance control system of claim 9, wherein the motion sound is recorded along with generation time timing data.

11. The maintenance control system of claim 9, wherein the sound recording means has microphones which are disposed in each section of the image processor.

12. The maintenance control system of claim 9, wherein the sound recording means records corresponding to a time coordinate axis having a same reference as that of a motion of the image processor.

13. The maintenance control system of claim 1, wherein the information obtaining means is a smell detection means for detecting a smell at a predetermined position of the

image processor, and smell information detected by the smell detection means is transmitted to the control apparatus.

14. The maintenance control system of claim 1, wherein the information obtaining means is a vibration detection means for detecting a vibration at a predetermined position of the image processor, and vibration information detected by the vibration detection means is transmitted to the control apparatus.

15. The maintenance control system of claim 14, wherein the vibration information is transmitted to the control apparatus along with a time coordinate axis having a same reference as that of a motion of the image processor.

16. The maintenance control system of claim 1, further comprising a physical characteristic value change detection means for detecting a change of a physical characteristic value of any one of the heat, light, and pressure, and change information of the physical characteristic value detected by the physical characteristic value change detection means is transmitted to the control apparatus together with time information.

17. The maintenance control system of claim 16, wherein a standard time to be used is stored in the image processor along with the change information and the time information.

18. The maintenance control system of claim 16, wherein input information of the change information of the physical characteristic value is stored in the control apparatus along with the change information and the time information.

19. The maintenance control system of claim 16, wherein at least one of a transmitting content, a date and hour to be transmitted, a transmitter and a receiver is stored in the image processor as information corresponding to information transmitted from the control apparatus.

20. The maintenance control system of claim 1, wherein the information obtained by the information obtaining means is transmitted to the control apparatus together with the time information.

21. The maintenance control system of claim 20, further comprising a memory means for storing the information obtained by the information obtaining means, wherein when abnormality of the image processor occurs, an output of the

DRAFTED BY DRAFTING CO., LTD.

information obtaining means is integrally recorded in the memory means with a abnormality occurrence content, abnormality occurrence time and time before and after the abnormality occurrence time.

22. The maintenance control system of claim 20, wherein data in a normal condition of the image processor is stored, and data in a condition of a series of motions is obtained for each prescribed period of time, and the data is compared with the data in the normal condition, and then abnormality is detected according to a comparison result exceeding a predetermined difference.

23. The maintenance control system of claim 20, wherein when the control apparatus receives abnormal information, the control apparatus stores also receiving time information of the abnormal information.

24. The maintenance control system of claim 20, wherein the image processor stores at least one of a transmission content, a transmission date and hour, a transmitter and a receiver transmitted from the control apparatus corresponding to the abnormal information.

TOP SECRET//DEFENSE

OPENING DRAWING

25. The maintenance control system of claim 1, wherein the image processor is an image processor to process a photosensitive medium, and has an image capturing means for capturing the image in the image processor as the image obtaining means in the image processor.

26. The maintenance control system of claim 25, wherein the image capturing means comprises a light source for emitting light having a wavelength outside a photosensitive area of the photosensitive medium, and either a CCD camera or CMOS camera capable of detecting the light emitted from the light source.

27. The maintenance control system of claim 25, wherein image data captured by the capturing means is transmitted through the communication section.

28. The maintenance control system of claim 25, wherein an image capturing motion by the image capturing means is capable of remote controlling.

29. The maintenance control system of claim 25, wherein an image capturing motion by the image capturing means is automatically conducted at fixed periods of time.

30. The maintenance control system of claim 25, wherein the image processor is a medical equipment.

31. The maintenance control system of claim 1, wherein the image processor is an image processor for processing a photosensitive medium, and further has a light source to emit light having a wavelength outside a photosensitive area of the photosensitive medium, a locus detection means for detecting a locus of the light emission, and a processing means for comparing the locus of the light emission which is a reference when the image processor is normally operated, with the locus of the light emission detected by the locus detection means, and for judging as abnormal when the locus of the light emission as the reference and the locus of the detected light emission are different from each other, and for storing the judgment information, in the image processor.

32. The maintenance control system of claim 31, wherein the judgment information is transmitted through the communication section.

COPYRIGHTED MATERIAL

33. The maintenance control system of claim 32, wherein the judgment information is transmitted at a predetermined date and hour.

34. The maintenance control system of claim 31, wherein a comparison motion, a judgment motion and a storing motion by the processing means is capable of remote controlling.

35. The maintenance control system of claim 31, wherein a comparison motion, a judgment motion and a storing motion by the processing means is automatically conducted at a preset date and hour.

36. The maintenance control system of claim 35, wherein the image processor is a medical equipment.

37. The maintenance control system of claim 1, wherein a transmission side stores transmission data transmitted at a last time, and a receiving side stores at least a part of the received data received at the last time, and at a next transmission and reception time, a transmission is conducted based on a part of the last time transmission data.

38. The maintenance control system of claim 37, wherein when the transmission side stores a part of the transmission data transmitted at the last time, the transmission side stores with a specified code attached to the part.

39. The maintenance control system of claim 37, wherein when the transmission side stores, in a memory section of the transmission side, a part of the transmission data transmitted at the last time, the transmission side integrally stores a predetermined part of the data with ID data of a receiver.

40. The maintenance control system of claim 37, wherein the receiver side received the transmitting data at the last time, integrally stores a part of the received data at the last time with ID data of the transmitter when the receiver side stores in a memory section of the receiver side.

41. The maintenance control system of claim 37, wherein when data transmitted at the last time among data received at this time does not coincide with data in which a part of the data received at the last time is stored, a judgment is made as abnormality and the abnormality is informed.

EFFECTIVEDATE:04/07/2000

42. The maintenance control system of claim 37, wherein when data transmitted at the last time among data received at this time does not coincide with data in which a part of the data received at the last time is stored, a mode to inform to the transmitter so that all of the data received at the last time are transmitted, is selected.

43. The maintenance control system of claim 37, wherein when data transmitted at the last time among data received at this time does not coincide with a part of the data received and stored at the last time, the data is changed so that both of the data coincide most or within a predetermined range with each other, and the changed data is stored with ID data of the transmitter.

44. The maintenance control system of claim 43, wherein the change of the data includes at least one of a change of mean value of the data, a change in which final data portion only of the data coincides, and a change in which most of a plurality of data coincide with each other.

45. The maintenance control system of claim 1, wherein transmission data is transmitted being attached with a data reference value.

46. The maintenance control system of claim 45, wherein content of peculiar reference value of an equipment is stored in the control apparatus.

47. The maintenance control system of claim 1, wherein when a transmission is conducted, the transmission side electronically stamps a time stamp on transmission data.

48. The maintenance control system of claim 47, wherein the transmitting side electronically stamps a country name, a time zone and a time stamp on the transmission data.

49. The maintenance control system of claim 1, wherein when the data is received, a receiving side electronically stamps a time stamp on receiving data.

50. The maintenance control system of claim 49, wherein the time stamp includes a place where the control apparatus is located, and ID data of the control apparatus.

51. The maintenance control system of claim 1, wherein when transmission data itself is data having time axis, this time receiving data is recognized when the data is stored

including the data just before the last time transmission or receiving data, and this time transmission data or the stored just before receiving data is compared with the stored data.

52. The maintenance control system of claim 51, wherein when data transmitted at the last time among data received at this time does not coincide with data in which a part of the data received at the last time is stored, both of the data coincide with each other by moving the received data in parallel so that the data on the time axis coincide with each other.

53. The maintenance control system of claim 51, wherein the data received is recognized by evaluating the received data including information of possibility of utilization, a requirement of retransmittance, and inconsistency information.

54. The maintenance control system of claim 1, wherein the information obtaining means is disposed in the image processor.

55. The maintenance control system of claim 1, wherein the predetermined information obtained by the information

obtaining means is transmitted by the communication section
to the control apparatus through the Internet line.